

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number
WO 2005/033376 A3

(51) International Patent Classification⁷: **C25D 5/34**,
7/12, 5/48

(21) International Application Number:
PCT/JP2004/014698

(22) International Filing Date:
29 September 2004 (29.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003-345062 2 October 2003 (02.10.2003) JP
2004-035594 12 February 2004 (12.02.2004) JP

(71) Applicant (for all designated States except US): **EBARA CORPORATION** [JP/JP]; 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 1448510 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KURIYAMA,**

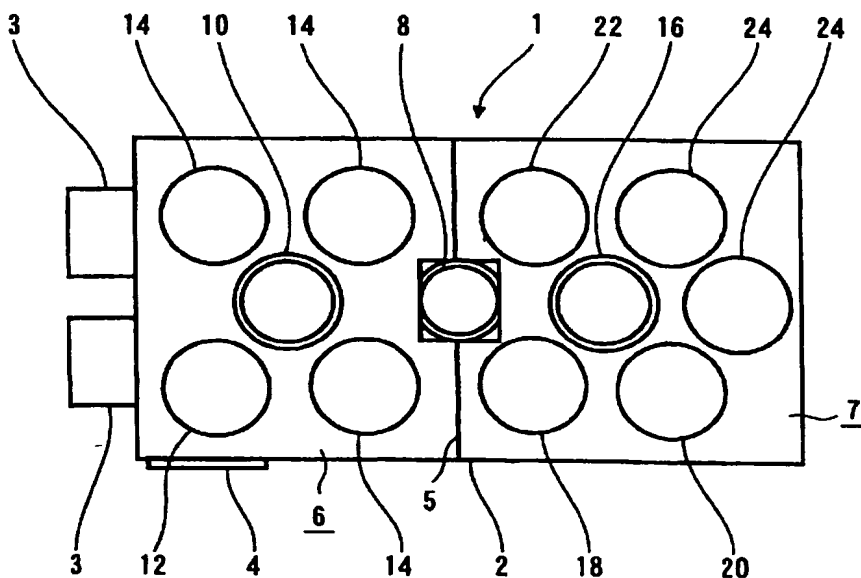
Fumio [JP/JP]; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 1448510 (JP). **KIUMI, Rei** [JP/JP]; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 1448510 (JP). **SAITO, Nobutoshi** [JP/JP]; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 1448510 (JP). **TAKEMURA, Takashi** [JP/JP]; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 1448510 (JP). **KIMURA, Masaaki** [JP/JP]; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 1448510 (JP). **TAKEDA, Sachiko** [JP/JP]; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 1448510 (JP). **GUO, Yugang** [CN/JP]; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 1448510 (JP).

(74) Agents: **WATANABE, Isamu** et al.; Gowa Nishi-Shinjuku 4F, 5-8, Nishi-Shinjuku 7-chome, Shinjuku-ku, Tokyo 1600023 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG,

[Continued on next page]

(54) Title: **PLATING METHOD AND APPARATUS**



(57) Abstract: A plating method comprising applying an ultraviolet ray to a surface of a substrate or exposing a surface of a substrate to an ozone gas or bringing a surface of a substrate into contact with ozone water or bringing a surface of a substrate into contact with electrolytic ionized water or performing a team treatment using steam on a surface of a substrate, and plating the surface of the substrate after said applying, exposing, bringing or performing process. A plating method comprising performing a team treatment using steam on a surface of a substrate, and performing a wet process on the surface of the substrate of a substrate with an acidic plating solution, cleaning the surface of the substrate with pure water and cleaning the surface of the substrate with an alkaline aqueous solution. A plating apparatus adapted to perform at least one of said methods.



KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

- (88) **Date of publication of the international search report:**
2 June 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.